IN THE CLAIMS

Please cancel claim 1.

Please add the following claims:

--22. A gene product from expression by a recombinant vaccinia virus synthetically modified by the presence, in a non-essential region of the vaccinia genome, of DNA not naturally occurring in vaccinia and coding for the gene product.

23. The gene product of claim 22 which is a protein.

24. The gene product of claim 23 wherein the protein is an enzyme.

25. The gene product of claim 24 wherein the enzyme is thymidine Kinase.

26. The gene product of claim 23 wherein the protein is a glycoprotein.

27. The gene product of claim 26 wherein the glycoprotein is herpes simplex virus glycoprotein.

28. The gene product of claim 26 wherein the glycoprotein is influenza virus hemagglutinin.

29. The gene product of claim 23 wherein the protein is an antigen.

30. The gene product of claim 28 wherein the antigen is herpes simplex virus glycoprotein.